

SEQUENCE LISTING

SEQ ID NO: 1

ABH1 cDNA sequence:

5 AAAGAGACGAACCTGAAGAAAAACCTCTCGGAAGAAGATGAGCAATTGGAAAAAC
TCTTCTCCTTCGCATTCGGCGAAAAAGGGACCTGAGTACGGCACTTCCTCCGACTAC
AAAGACCACATCGAGACTTGTTTCGGTGTCTTCGTAGAGAAATCGAGCGTTCTG
GAGATCAAGTTTTGCCTTTTCTACTACAATGTGCTGAACAATTGCCTCATAAGATT
CCTTTGTATGGGACTTTGATTGGTTTGTGAACCTGGAGAAATGAAGATTTTGTCCA
10 GAAGCTAGTAGAAAAGTGTCCACGCTAATTTCCAGGTGCTTTAGATTCTGGCAAC
TGCAACAGTATCCGTATATTGCTTCGCTTATGACTTCCTGTGTGCAGTAAGGT
TATTTCAACGCTCTTCTTTGATTGCTCTTCGAAACATTGCTATCATCTGCTGCCA
CTACTGTGGATGAAGAGAAAGGAAATCCATCATGGCAGCCACAAGCTGACTTTT
ACGTTATATGCATCTGTCCAGCCTCCCGTGGGGAGGATCAGAACTCGCTGAGCA
15 AGTTCCTGATGAGATTGAAAGAGTGTTAGTTGGGATACAAGCTTATTTGAGCATC
CGAAAGAATTCTTCCACCTCTGGGTAAACCTTTTTCACAACGGAGAATTTGAAA
CGAGCCTTGCAGAGAAGGATTTTCGTGGAGGATCTATTGGATCGAATTCACTCTCT
GGCTTCCAATGGATGGAACCTTGAAAGCGTACCTAGGCGCTCATCTCTCGTTTGA
GCTCAACTCGTTGCTGGAAAGTTTCATGAGCTACGTCCTTAAATGTATGGAAC
AACCAGTCCACCTCTGATCATTTCGAGGGCATAAGTGGCAACGAAGAGCATG
20 ATGCATTGACGAGATATCCCCAGAGAATTCGTAGGTTGAATATATTTCCAGCTAA
TAAATGGAGGATGTACAACCAATTGATCGTTTGTGCTGGAGGAGATTTTGCTG
GATGTGCTCTTCTATTGAAATGGATGTCCGAAGGAGTGTGTTGCTGCGCTGTTC
ATCTTCTGTACATTTCCGGTACGAGTATCTTATGGCAGAGACACTATTTTCTCAG
ATAGCTGCTGCTACCCAGCCACCATTCAAGACTCTTTATTAACACTCGTGATTAT
25 GGATCTTTGTAAGGCTTTCGGGGTGCTTTCGCTGTGTTGCTGCGCTGTTC
GTGCACTATTTGAGAAAAATATCCGACTTAGACATGGAATCCAGGACGCGTCTTAT
CCTCTGGTTTCTCAACCACTTCAACTTCAATTCATCTGGCCGTTGGGAAGAGT
GGGCTTTTGTGTGGATCTTCCCAAGTGGGCCCTTAAGCGTGTATTTGTTTCAGGA
GATTTTGCAAAGAGAAGTACGCTTGTCTTACTGGGATAAAATTAAGCAGAGCATT
30 GAGAATGCGACTGCGCTAGAAGAATTACTTCCCAAAAGCTGGTCCGAATTTTA
TGTATTCTTGAAGAAAGGTAAGAGAAAAACAGAAGAACAGCAATTGTCAGCCG
AATTGAGCAGGAAGGTCAAGGAAAAACAACCCGACGTGACATGATAGTGTGG
ATTGAAGAAACGATATATCCAGTTCATGGTTTGAAGTTACTCTTACAATAGTTG
TACAGACCTTACTTGACATCGGATCAAAAAGTTTCACTCAITTTGGTCACTGTCT
35 GGAGCGATATGGCCAAGTATTTTCAAAGCTTTGTCTGATAACGATAAGCAGGTG
ATGCTATTATCTCAAGTGAGTACATACTGGAAAAACAATGTACAAATGACGGCG
GTGGCAATTGATAGGATGATGGGTTATAGACTAGTATCTAATCAGGCAATTGTTA
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40 AAAGATATATCAACACATTACGAAAAATGTTTGGTTGCTGAGAAAGCTTCAGCCA
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45 AGTTCCTTAGGTGTAAGGAAACGGCTCCAGATCCAACCTAAAGTGAGATCA
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GTGGACGCGAGAATGGAACCCAAAGAAGAGTTGCGAAGTCGGTGAGAGAGA
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50 GATGTGCATCCTCTCTTCTCCAAGCCATATCTTCTGCACTTCAATCCCATTACA

TTAATCTTCTCTTTCAATCTCAATCAAACCTGTCTCTTTTGTTTTTTGTATGAGA
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TTAAACTTTAAAAAAAAAAAAAAAAA

5 SEQ ID NO: 2

ABH1 Protein sequence

MSNWKTLLRIGKEGPEYGTSSDYKDHIECTFCGVIRREIERSGDQVLPFLQLQCAEQLP
HKIPLYGTLIGLLNLENEDFVQKLVESVHANFQVALDSGNCNSIRILLRFMTSLLCSK
VIQPASLIVVFETLLSSAATTVDDEEKGNPSWQPQADFYVICLSSLPWGGSELAEQVPD
10 EIERVLVGIAQYLSIRKNSSSTGLNFFHNGEFESSLAEKDFVEDLLDRIQSLASNGWKL
ESVPRPHLSFEAQLVAGKFHELRLPIKMEQSPSPSDHSRAYSQKQKHDALTRYQRI
RLNIFPANKMEDVQPIDRFVVEEYLLDVLFYLNGCRKECASYMANLPVTFRYEYLM
AETLFSQILLPLQPPFKTLYYTLVIMDLCKALPGAFPAVVAGAVRALFEKISDLDMES
RTRLILWFSHHLSNFQFIWPWEEWAFVLDLPKWAPKRVFVQEIQREVRLSYWDKIK
15 QSIENATALEELPPKAGPNFMYSLEEGKEKTEEQQLSAELSRKVKEKQTARMIVW
IETIYPVHGFEVTLTIVVQTLTDIGSKSFTHLVTVLERYGQVFSKLCPDNDKQVMWLS
QVSTYWKNNVQMTAV AIDRMMGYRLVSNQAIVRWVFSPEVNDQFHVSDQPWEILG
NALNKTYNRIISDLRKDISNITKNVLVAEKASANARVELEAAESKLSLVEGEPVLGENP
AKMKRLKSTVEKTGEAELSLRESLEAKEALLNRLASETEVLLLLLQSFGLVILKERLP
20 DPTKVRSVQDLKSIGAEDDKPSAMDVDSENGNPKKSCVEGGEREQWCLSTLGYLTAF
TRQYASEIWPHEKLESEVFSGEDVHPLFLQAISSALQFPLH

SEQ ID NO: 3

1250 bp *ABH1* genomic sequence containing the promoter

25 GAAAGGGAACCTCAGCCAGCCTCGGTAACCAATCTTCTTCTGTTTGCCTTTCTC
TTGTAATGATCTCACATCATGTTTGATGGAATCTAAGACTTTGGATGGGCATCTA
TTTTATCATGAGTTAATCTTTGACACAAGAAACATCTCTTTCTAATCTGTTCCATA
GTCAAAAGAAATTTGACAACTTCACCAGATGGAAGTTGTACCTCTTTATTGTTA
CGAAGTGAGTLLGGCGACATGAAACAAAACCCGAACACGACATAGTCTCTGAAAC
30 TGTGATTTTTCAGAGTCCATCACCACCTCCTTCACTTCCCCAATACAGCTCGTGAT
CTCTTTAATGTGTCTGAGTATAATAGTTCACCGAAATTTCTCATCTCGACACCC
AGATTGGAAGAAAATTCAGATAATCAATTGGAGGATTTCTCAATCCATCTATCCAT
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TCTTCTCAGATTTGAAGAAAATTTGGAATCGATCCTTTGAGAGAGACAAACCTC
35 TAACCCGAGAAGAAATTTCTCAAAATTCGTGGCATATCTAATATCCAATTAGACAT
CCTTTGATTCTCTAGATTTCAAAACCTACCCAACTAAGCAGACAGTGTCTTCTGTAA
TTGACAAAAGCGCGGTTGATCAGAAAGAACTAGAGGCTATTGTCTTAAATCG
ACATATTCTGAATGGCTTTATCCAGCTCCATGATGAGATCCTGATAGAGAGTAAA
CAACTTCCCGAAGCTCGTCAAACTGATTTGCAGGAAACAACTCCAAAGAGAAA
40 AAACAGTGAAGAAATCCGAGTAATTCAGATGATAACCAACACAGAACTGAGAAT
CACAAAGCAAACTCTCGTAACAGAGAAAGAGTCAGAACTACCAAAAATCCGAGG
AAGAAAACAACAATTTAGACCGGACCGAACACGTAAATATTTCTGGTAGAAGCT
CCGTTCAAGATAGAACCTGAGAGAAAAGTCTTTAGGCTCCAAATTAATCTGGG
ACGACTATTGTTTAAACGGCTAGTTTCAGCTACTAAGAGAAAAGAGAGAGAGAA
45 AAACTTTTGTCAAACCTTTTGTGAACTCCTTTTCTTAGATGACAAACACATATG
AGAAAATAAAAAAAATAGTTTGTGACGAGACACGACATAAAAAAAAC
TAGGGCAGAGTACTGATACCAAGGAGAAACAAAGAGACG

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